

Physiology/Night Flight Review

1. What is meant by the term hypoxia?
2. What is the pressure exerted against the body by the atms. @ sea level? _____
3. What is meant by the term partial pressures when related to hypoxia?
N₂= 78% O₂= 21% atmosphere pr. @ sea level _____
18,000' _____ 40,000' _____
4. What is the difference between breathing vs respiration?
How does an animal exchange O₂/CO₂? a. osmosis b. diffusion
5. What occurs when partial pressures of the **essential** gases are not at a high enough concentration to pass through the alveoli into the bloodstream?
6. At what altitude is partial use of O₂ needed in the cockpit?(pilot) _____ > ___ min.
7. At what altitude must the pilot use O₂ for the entire flight? _____
8. At what altitude must passengers have available O₂? _____
9. What is the difference between SPATIAL DISORIENTATION vs VERTIGO?
Spatial Dis. - _____
Vertigo - _____
10. Why is night flight with no horizon, moon, reference pts. etc. IFR skills?
11. Flying directly into the sun with hazy conditions may cause what condition?
12. What may occur flying over water, along a beach at night, or VFR on top? _____
13. When transitioning from the VFR environment to IFR, what is the time span in **seconds** that it normally takes before a pilot can become disorientated? ____
14. What hood/actual time under the new FAR's **must** be taken with the instructor before attaining a Private? _____ Inst. Rating? _____ Comm. _____
15. If one experiences either vertigo/spatial disorientation, what must one do to regain control of the AC. and his/her emotions? _____
16. What physiological condition may one encounter if one has HIGH levels of anxiety or stress in the flight. regime? _____
17. What is the recommended treatment. for such condition? _____
18. At what alt. does hypoxia become a factor at night? _____ ' Why?
19. What is Ear, Tooth squeeze?
- 20.. How long does it take the eyes to adapt to total night vision? _____(minutes)

- 21.. Why do we try to use RED LIGHT in the cockpit? _____
22. What is FLICKER VERTIGO ?
When is it most likely to occur? _____, _____, _____
23. At night while taxiing in a high traffic area, (RDU), why is it professional/smart to keep the strobes off? _____ & also 8NC8 _____
24. Why is it more of a challenge to land at 8NC8@ night? _____, _____.